



ORAL HEALTH SURVEY NEVADA 2006

**Department of Health and Human Services
Nevada State Health Division
Bureau of Family Health Services**

Jim Gibbons
Governor

Alex Haartz, MPH, Administrator
Nevada State Health Division

Michael J. Willden, Director
Department of Health and
Human Services

Bradford Lee, M.D.
Nevada State Health Officer

January 2007

Preface

During the 2006 State Fiscal Year (July 1, 2005 – June 30, 2006) the Nevada State Health Division in partnership with the University of Nevada, Las Vegas School of Dental Medicine conducted a statewide oral health survey of third grade children enrolled in Nevada's public elementary schools.

The purpose of the survey was to assess the oral health status and needs of children in Nevada, make program decisions that are data driven, and allow for meaningful program evaluation.

As it did when it conducted a similar assessment of the oral health of children enrolled in the third grade in 2003, the Nevada State Health Division chose to utilize the Association of State and Territorial Dental Directors' (ASTDD) Basic Screening Survey model. This ensures that Nevada's results are comparable with other states that have utilized the ASTDD Basic Screening Survey. Data collected included caries experience, untreated decay, dental sealant status, treatment urgency, as well as socio-economic data including age, gender, race and ethnicity, participation in the Free and Reduced Price Meal Program, and insurance status.

The report is available on the State Health Division web site www.health.nv.gov/oral. Comments, suggestions, requests for additional information or hard copies may be directed to:

Oral Health Program
Bureau of Family Health Services
Nevada State Health Division
3427 Goni Road, Suite 108
Carson City, NV 89706
TEL: (775) 684-4285
FAX: (775) 684-4245

Funding for this project was provided by the Centers for Disease Control and Prevention through the Cooperative Agreement "Support State Oral Disease Prevention Programs" (U58/CCU919985). The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

Acknowledgements

TECHNICAL ASSISTANCE

**MICHAEL MANZ, DDS, MPH
UNIVERSITY OF MICHIGAN
ASTDD CONSULTANT**

Coordination of Volunteer Dental Students

**MILDRED A. McCLAIN, Ph.D.
UNIVERSITY OF NEVADA LAS VEGAS
School of Dental Medicine**

Orthodontic Residents

Dr. Shervin Ardalani
Dr. Jon Bolesta
Dr. Jose Chow
Dr. Thomas Garner
Dr. Steve Harper
Dr. Brian Holman
Dr. Sadi Kermani
Dr. Daniel Lee
Dr. Kim Mai
Dr. Swathi Mamidi
Dr. Andrea Picard
Dr. Paresh Shah
Dr. Douglas Simister
Dr. Troy Smith

Dental Students

Cesar Acosta
Genevieve Allen
Valerie Ash
Samuel Beck
Robert Hale
Greg Koontz
Anita Masaitis
Paul Schwarz
Jimmy Tran
Amelia Wang
James Ward
Andrew Wellington

The Nevada State Health Division wishes to thank the University of Nevada, Las Vegas School of Dental Medicine and all of the elementary schools and children that participated in the 2006 Healthy Smile-Happy Child Oral Health Survey. We also wish to acknowledge school administrators, teachers, school nurses, first aid safety assistants, and other staff. Without their assistance, this project would not have been completed.

Table of Contents

Preface.....	1
Acknowledgements	2
Table of Contents	3
Introduction	5
Table 1. Comparison of the 1992 Youth Oral Health Needs Assessment with the 2003 and 2006 Healthy Smile-Happy Child Surveys	6
Sampling and Methods.....	9
Key findings.....	10
Results	12
Figure 1- 2006 Oral Health of Nevada’s Third Grade Students Stratified by Eligibility for the Free/Reduced Lunch Program.....	14
Figure 2 - 2006 Oral Health of Nevada’s Third Grade Students Stratified by Time Since Last Dental Visit	15
Figure 3 - 2006 Oral Health of Nevada’s Third Grade Students Stratified by Race	16
Figure 4 - 2006 Oral Health of Nevada’s Third Grade Students Stratified by Dental Insurance Coverage.....	17
Figure 5 - 2006 Oral Health of Nevada’s Third Grade Students Stratified by Region	18
Table 2. Demographic Characteristics of Children Participating in Nevada’s Oral Health Survey	21
Table 3. Oral Health of Nevada’s Third Grade Children	22
Table 4. Last Dental Visit, Insurance and Access to Care for Nevada’s Third Grade Children	23
Table 5. Reasons Why Child Could Not Get Dental Care in Past 12 Months	24
Table 6. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Eligibility for the Free and/or Reduced Price Meal Program ...	25
Table 7. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Time Since Last Dental Visit.....	26
Table 8A. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Race and Ethnicity.....	27
Table 8B. Reasons for Trouble Accessing Care: Stratified by Race and Ethnicity ...	28
Table 8C. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Race	29
Table 9. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Dental Insurance Status	30
Table 10. Demographics, Access to Care and Oral Health of Nevada’s Third Grade Students Stratified by Region	31
Table 11. Mean DMF/dmft and Number of Teeth with Decay by Socio-Economic Categories	32
Table 12 2003 and 2006 Nevada Oral Health Results Compared with Healthy People 2010 Objectives.....	33
Table 13A. Prevalence of Dental Sealants in Nevada’s Children Compared to Children from Other States	34
Table 13B Prevalence of Decay Experience in Nevada’s Children Compared to Children from Other States	35

Table 13C. Prevalence of Untreated Tooth Decay in Nevada's Children Compared to Children from Other States	36
------------------------------------------------------------------------------------------------------------------	----

Introduction

According to *Oral Health in America: A Report of the Surgeon General*, dental and oral diseases affecting some population groups in the U.S. are a “silent epidemic.” According to the report, dental caries is the single most common chronic childhood disease – five times more common than asthma and seven times more common than hay fever. More than 51 million school hours are lost each year to dental-related illness.

Oral diseases and conditions such as tooth decay, gum disease, oral cancer, and injuries to the jaw and mouth affect people of all age, race, ethnicity and socio-economic status. However, poor children suffer twice as much tooth decay as their more affluent peers and their disease is more likely to be untreated. Additionally, members of racial and ethnic minority groups experience a disproportionate level of oral health problems and are far less likely to enjoy preventive measures such as dental sealants compared to white non-Hispanic children (33% vs. 51%). Insurance status is also a significant predictor of oral health status. For each child without medical insurance, there are at least 2.6 children without dental insurance and uninsured children are 2.5 times less likely than insured children to receive dental care.

Why are race/ethnicity, poverty levels, and insurance status important to Nevada? In 2000, 66.8 percent of Nevada’s population was White-Non Hispanic. The Hispanic population was 20.4 percent. Black-Non Hispanics accounted for 6.8 percent of the population. Asian-Non Hispanics were five percent of the population and Native American-Non Hispanics accounted for 1.1 percent of the population. Since the year 2000, the population has grown by over 25 percent and the minority community has grown the fastest. Now the White-Non Hispanic makes up 61 percent. However, all of the minority groups have grown as a percentage of the total population. The Hispanic population is now 24 percent. Black-Non-Hispanic accounts for seven percent. Asian-or Pacific Islander is 6.5 percent of the population and Native American-Non-Hispanic make up 1.3 percent of Nevada population.

According to the United Health Foundation 13.4 percent of Nevada’s children were living in poverty in 2006. Based on information from the Kaiser Family Foundation, we learn that in 2004-2005, 16 percent of Nevada’s children did not have insurance. That translates into almost 104,340 uninsured children (ages 0 thru 18). The General Accounting Office report, *Dental Disease is a Chronic Problem Among Low-Income Populations*, April 2000 showed that poor children and adults across the United States visit the dentist at about half the rate of their higher-income counterparts.

The first oral health assessment of Nevada’s youth, *A Youth Oral Health Needs Assessment for the State of Nevada*, done in 1992 by Cristman Associates, found that 67 percent of children had experienced decay in permanent or primary teeth. Active decay in primary or permanent teeth requiring routine dental treatment was found in almost half (48.6%) of first graders and more than half (51.0%) of sixth graders. Approximately 18 percent of first graders and 12 percent of sixth graders were found in need of some form of urgent care because of active caries that could result in pain or infection. About five percent of first and three percent of sixth graders needed immediate attention due to severe pain and infection.

A 2003 assessment of children enrolled in third grade in Nevada, (Healthy Smile Happy Child Oral Health Survey, Nevada 2003), found that little had changed. Sixty-seven percent (67%) of Nevada's children have experienced tooth decay, 39 percent have untreated decay, and seven percent (7%) have urgent needs.

The results of the 2006 survey of Nevada's third grade children echo those of the 2003 survey. Seventy-one percent (71%) of Nevada's children have experienced tooth decay, 44 percent have untreated decay, and six percent (6%) have urgent needs.

Again, why is this important to Nevada? The data attempts to provide answers to the following questions. Is decay experience increasing or decreasing? Are children who experience tooth decay better able to access services than they were in the past? Do more or fewer children go to school each day in pain? Are our children who are most at risk receiving the preventive services we know to be cost effective, safe, and proven? The answers to these questions will frame funding decisions, drive policy discussions, direct programmatic decisions, and allow us to evaluate how we, as a society are responding to the needs of our children.

The data collected each year is only a "snapshot in time." In order to answer these questions, our state will need ongoing, systematic data collection. These data can then be analyzed to determine trends. Until such time as reliable trend analysis can be completed, we are dependent on each "picture." The data collected is summarized below.

Table 1. Comparison of the 1992 Youth Oral Health Needs Assessment with the 2003 and 2006 Healthy Smile-Happy Child Surveys

	A Youth Oral Health Needs Assessment - 1992	Healthy Smile-Happy Child Survey - 2003	Healthy Smile-Happy Child Survey - 2006
Number of children screened	764	2,470	794
Grades screened	First and sixth grade	Third grade	Third grade
Questions on the written portion of the survey	Gender Grade Race/ethnicity	Gender Age Race/ethnicity Participation in Free and Reduced Meal Program	Gender Age Race/ethnicity Participation in Free and Reduced Meal Program

	<p>Have you visited a dentist within the past year?</p> <p>What was the reason for your visit to the dentist?</p> <p>Have you ever missed school because of a toothache or pain in your mouth?</p> <p>Does anyone in your family regularly smoke while you are in the same room?</p> <p>Have you visited a doctor or a health clinic in the last year?</p>	<p>About how long has it been since your child last visited a dentist?</p> <p>What was the main reason that your child last visited a dentist?</p> <p>Do you have any kind of insurance that pays for some or all of your child's dental care?</p> <p>During the past 12 months, was there a time when your child needed dental care but could not get it at that time?</p> <p>The last time your child could not get the dental care he/she needed, what was the main reason he/she couldn't get care? (Only asked if responded, "yes" to the previous question).</p> <p>Do you have any kind of insurance that pays for some or all of your child's medical or surgical care?</p>	<p>About how long has it been since your child last visited a dentist?</p> <p>What was the main reason that your child last visited a dentist?</p> <p>Do you have any kind of insurance that pays for some or all of your child's dental care?</p> <p>During the past 12 months, was there a time when your child needed dental care but could not get it at that time?</p> <p>The last time your child could not get the dental care he/she needed, what was the main reason he/she couldn't get care? (Only asked if responded, "yes" to the previous question).</p> <p>Do you have any kind of insurance that pays for some or all of your child's medical or surgical care?</p>
Oral health data collected	<p>Decayed, missing, or filled adult teeth (DMFT)</p> <p>Decayed, missing, or filled surfaces on adult teeth (DMFS)</p> <p>Decayed or filled primary teeth (dft)</p> <p>Decayed or filled surfaces on primary</p>	<p>Caries experience by child</p> <p>Presence of untreated decay</p>	<p>Caries experience by tooth</p> <p>Presence of untreated decay</p>

	teeth (dfs)		
	Dental sealant status	Dental sealant status	Dental sealant status
	Plaque Index Score		
	Treatment urgency	Treatment urgency	Treatment urgency
Statewide findings	<p>67% of children examined had experienced decay (cavities or fillings) in permanent or primary teeth</p> <p>Active tooth decay in primary or permanent teeth requiring routine dental treatment was found in 48.6% of first graders and 51.0% of sixth graders (<i>Note: screeners used dental explorers</i>)</p> <p>About 5% of first graders and 3% of sixth graders needed immediate attention due to severe pain or infection</p> <p>Only 20% of children examined had evidence of dental sealants of their permanent molars</p>	<p>67% of children examined had cavities or fillings (decay experience)</p> <p>39% of children had untreated decay (<i>Note: Screeners did not use dental explorers. Visual screening only.</i>)</p> <p>7% of children examined were in need of urgent dental care because of pain or infection</p> <p>33% of children had dental sealants</p>	<p>71% of children examined had cavities or fillings (decay experience)</p> <p>44% of children had untreated decay (<i>Note: Screeners did not use dental explorers. Visual screening only.</i>)</p> <p>6% of children examined were in need of urgent dental care because of pain or infection</p> <p>41% of children had dental sealants</p> <p>Mean DMFT - 3.1 Mean number of decayed but untreated teeth – 1.3</p>

Sampling and Methods

The target population of the 2006 survey was all third graders in the state of Nevada. All schools with at least 20 children in third grade were included in the sampling frame (286 schools and 30,934 third graders). The sampling frame was stratified by region and schools within each region were randomly selected. The sampling size was reduced from the 2003 sample based on the 2003 sampling results and further reduction in resources. The state was divided into the same three regions as 2003, 15 schools from the Clark region, 13 schools from the Washoe region and 13 schools from the rest of the state. From those 41 schools, 34 elected to participate, providing a potential sample of 3,681 third graders. Only those third graders that returned signed permission slips, 794, were included in the screening.

Data was collected utilizing two mediums: a written consent form and a visual oral health screening. The consent form was answered by each student's parent/guardian and contained questions concerning socio-economic status and past oral health experience.

2006 Visual Oral Health Screening

The southern region was screened by volunteer dental students and dental residents who were calibrated by the staff of Nevada's Oral Health Program. The northern region was screened by a team from Nevada's Oral Health Program. The ASTDD *Basic Screening Surveys: An Approach to Monitoring Community Oral Health, 1999* guidelines were used to perform the screenings and collect data.

2006 Data Management and Analysis

The data was entered into a Microsoft Access database that was exported to a Microsoft Excel workbook and sent to Michael Manz, DDS, MPH, a consultant for the ASTDD, for analysis. To account for differences in response rates, the data was adjusted for school selection probabilities and student non-response.

Key findings

- ⇒ Dental decay is a significant public health problem for Nevada's children
 - 71 percent of the children had cavities and/or fillings (decay experience)
 - 44 percent of the children had untreated dental decay (cavities)
- ⇒ While dental sealants are a proven method for preventing decay, most of Nevada's children do not have access to this preventive service
 - Only 41 percent of the children had dental sealants
- ⇒ A large percentage of Nevada's children have limited access to regular dental care
 - Only 60 percent of the parents reported that their child had seen a dentist within the last 12 months
 - 9 percent of the parents reported that their child had never been to a dentist
 - 18 percent of parents reported that they had trouble accessing dental care during the last year. The primary reasons were "could not afford it" and "no insurance"
- ⇒ The majority of Nevada's children have some type of dental and medical coverage
 - 62 percent of the parents reported that they had some type of **dental** insurance coverage for their child
 - 66 percent of the parents reported that they had some type of **medical** insurance coverage for their child
- ⇒ Low-income children have poorer oral health
 - Compared to children not eligible for the free and/or reduced price meal program, a significantly **higher** proportion of eligible children had a history of decay (62% vs. 80%) and untreated decay (29% vs. 52%) while a significantly **lower** proportion had dental sealants (52% vs. 36%)
- ⇒ Children who have not been to the dentist in the last year, or who have never been to the dentist, have poorer oral health
 - Compared to children who had been to the dentist in the last year, a higher proportion of children who had a dental visit more than one year ago or who had never been to the dentist had untreated decay (32% vs. 51% and 71% respectively)
 - A significantly lower proportion of children with less than annual dental visits had dental sealants (53% vs. 27% and 12% respectively)
- ⇒ Minority children have poorer oral health
 - Compared to white non-Hispanic children, a significantly higher proportion of minority children had untreated decay (28% vs. 45%) while a lower proportion had dental sealants (51% vs. 33%)
- ⇒ Children with no dental insurance have poorer oral health

- Compared to children with dental insurance, a significantly higher proportion of children without dental insurance had untreated decay (35% vs. 51%) while a significantly lower proportion had dental sealants (49% vs. 27%)
- ⇒ There are regional differences in the oral health of Nevada's children
 - A significantly higher proportion of children in Clark County have untreated decay compared to children in Washoe County (49% vs. 32%)
 - A significantly lower proportion of children in Clark County compared to the Washoe County and the remainder of the state has dental sealants (32% vs. 68% vs. 56%)
- ⇒ Considerable improvements in the oral health of Nevada's children must be made in order to meet the Healthy People 2010 objectives for caries experience, untreated decay and dental sealants
- ⇒ Compared to children from several other states, children in Nevada have a higher prevalence of untreated decay and a lower prevalence of dental sealants

Results

Of the 41 selected schools, 34 agreed to participate in the oral health survey. The 34 schools had a total third grade enrollment of 3,681 children. Questionnaires and consent forms were returned by 794 children (22% response rate). The children ranged in age from 8-11 years with a mean of 8.7 years. About half of the children were female (51%) and 40 percent were white.

Forty-six percent (46%) of the children screened were eligible for the free and/or reduced price meal program. To be eligible for the free and/or reduced price meal program during the 2005-2006 school year, annual family income for a family of four could not exceed \$25,152/\$35,798¹ (free/reduced). In terms of free and/or reduced meal status, the third graders participating in the oral health survey were representative of the state as a whole. Statewide, 46 percent of children in schools with third grade enrollment are eligible for the free and/or reduced price meal program and 46 percent of the children in the sample were eligible.

Oral Health Status Indicators (Table 3 and Table 11)

Seventy-one percent (71%) of the children screened had decay experience (untreated decay or fillings) in their primary and/or permanent teeth. Forty-four percent (44%) of the children had untreated decay at the time of the screening,² while six percent (6%) were in need of urgent dental care because of pain or infection. On average, each third grader screened had at least one tooth with untreated decay (average = 1.3 teeth with untreated decay).

Forty-one percent (41%) of the children had a dental sealant on at least one permanent molar. Those third graders who did not have sealants had almost four times the number of teeth with untreated decay as those with sealants (1.8 vs. 0.5). Dental sealants provide an effective way to prevent decay on the chewing surfaces of molars (back teeth), which are most vulnerable to caries. A resin coating is painted on the “pits and fissures” on the top of the teeth so that cavity-causing bacteria cannot reach areas that are difficult to clean and for fluoride to penetrate.

Access to Care Indicators (Table 44)

The majority of parents (66%) reported having some type of medical insurance coverage for their child, and 62 percent reported some type of dental insurance.

Slightly more than 60 percent of the parents reported that their child had been to the dentist in the last year while nine percent reported that their child had never been to the dentist. Eighteen percent (18%) reported that during the last 12 months there was a

¹ U.S. Department of Agriculture, Child Nutrition Programs, School Lunch Program, Income Eligibility Guidelines SY 2005-2006, www.fns.usda.gov/cnd/Lunch/.

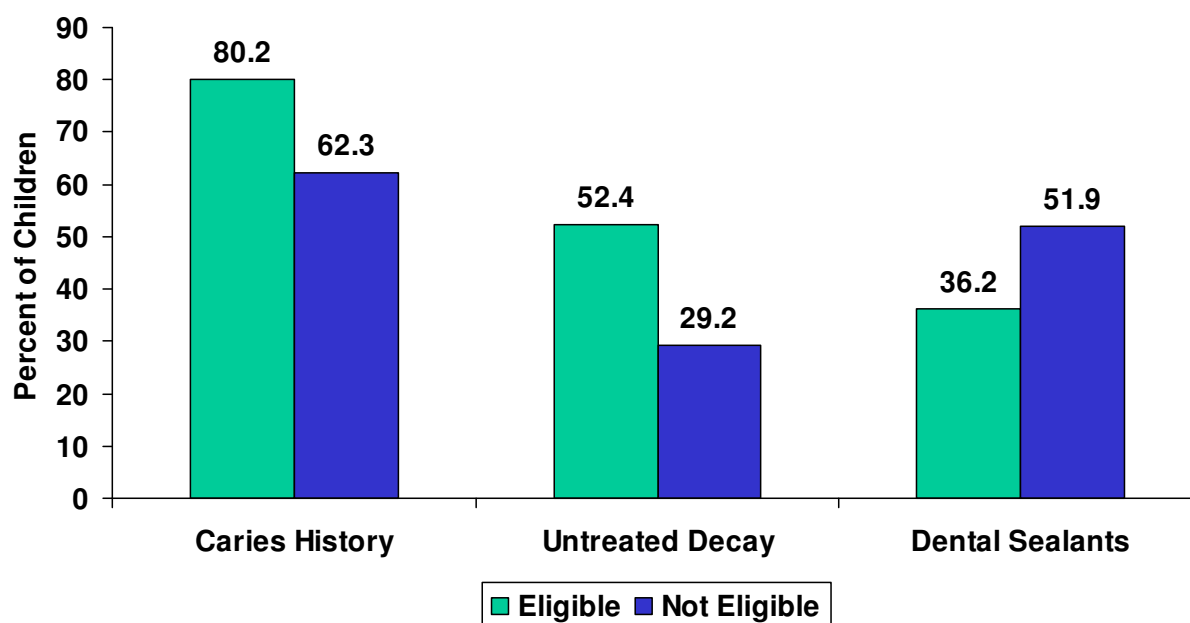
² The percent of children with untreated decay is assumed to be an under estimation because radiographs (x-rays) were not taken.

time when their child needed dental care but could not get it. The predominant reasons for not being able to get care were “could not afford it” and “no insurance” (see Table 5).

Impact of Socio-economic Status (Table 6 and Table 11)

Eligibility for the free and/or reduced price meal program is often used as an indicator of overall socio-economic status. A significantly higher proportion of children eligible for the meal program, compared to those not eligible, had a history of caries (80% vs. 62%), had untreated decay (52% vs. 29%), and had a need for urgent dental care because of pain or infection (7% vs. 3%). Children eligible for the free or reduced lunch program had twice as many teeth with untreated decay as children who were not eligible (1.6 vs. 0.7).

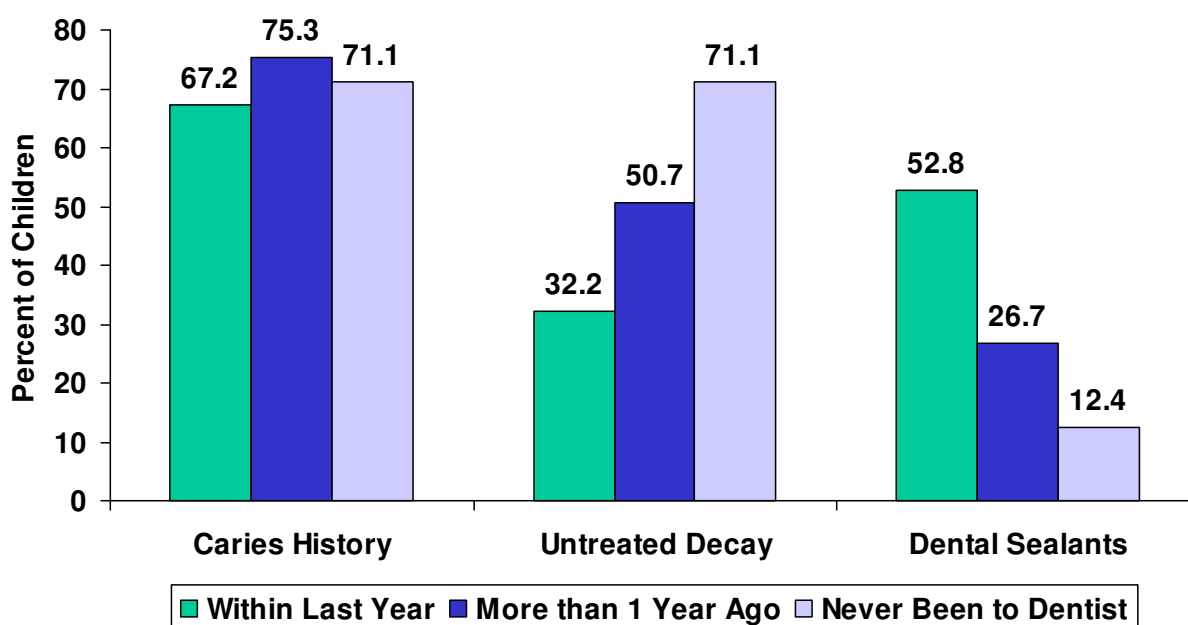
FIGURE 1- 2006
ORAL HEALTH OF NEVADA'S THIRD GRADE STUDENTS
STRATIFIED BY ELIGIBILITY FOR THE FREE/REDUCED LUNCH PROGRAM



Impact of Dental Visit Frequency (Table 4 and Table 7)

While the majority of the parents (60%) reported that their child had been to a dentist in the last year, 21 percent reported that their child had not seen a dentist in the last year and nine percent (9%) reported that their child had never been to a dentist. Children whose parents reported a dental visit in the last year were significantly more likely to have dental sealants than those whose last visit was more than one year ago or who had never been to the dentist (53% vs. 27% and 12%). They were also significantly less likely to have untreated decay (32% vs. 51% and 71%), and were significantly more likely to have no need for restorative dental care (72% vs. 53% and 35%).

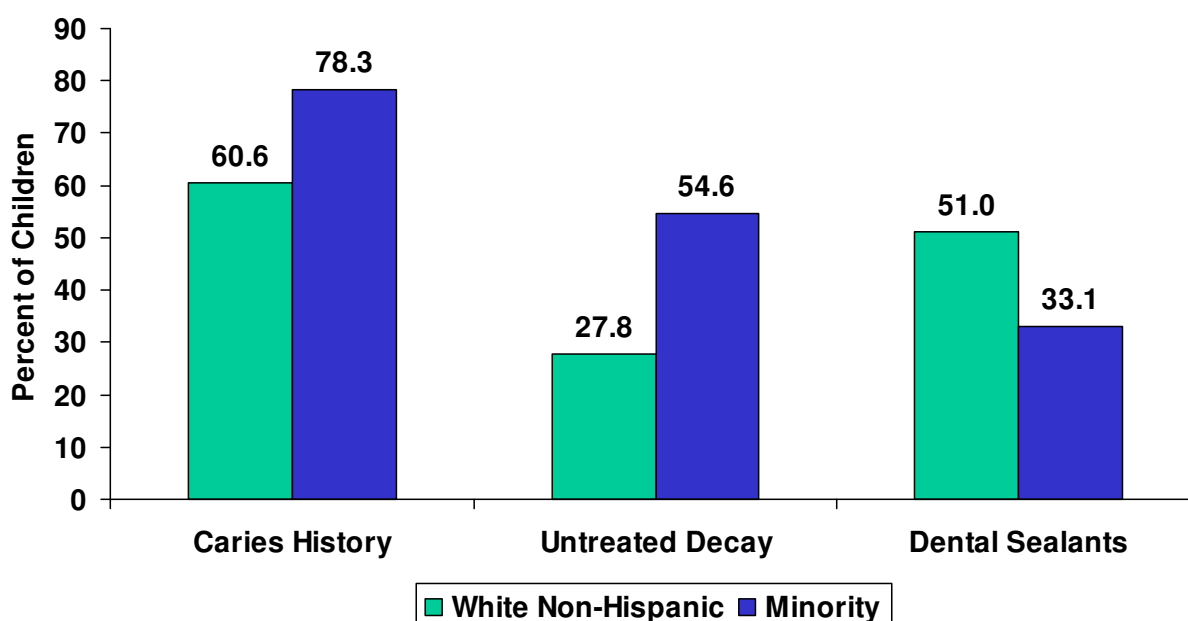
FIGURE 2 - 2006
ORAL HEALTH OF NEVADA'S THIRD GRADE STUDENTS
STRATIFIED BY TIME SINCE LAST DENTAL VISIT



Impact of Race and Ethnicity (Tables 8C)

There was a significant difference in the proportion of white and minority children with a history of decay experience (61% vs. 78%). In addition, a significantly higher proportion of minority children have untreated decay (55% vs. 28%) and a significantly lower proportion of dental sealants (33% vs. 51%).

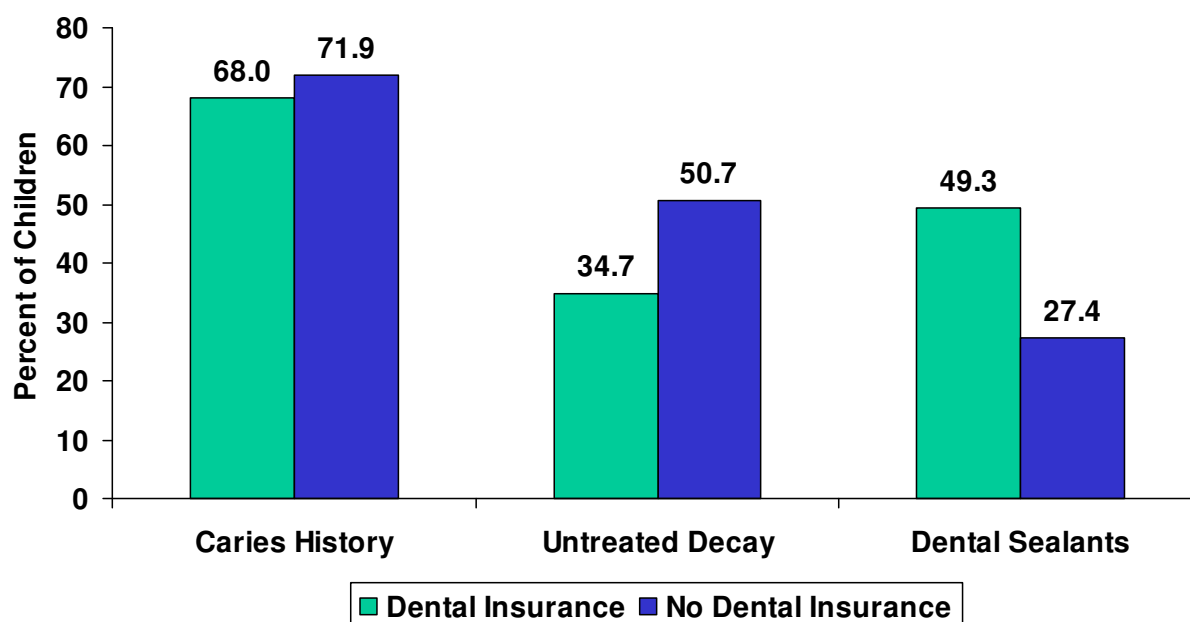
**FIGURE 3 - 2006
ORAL HEALTH OF NEVADA'S THIRD GRADE STUDENTS
STRATIFIED BY RACE**



Impact of Dental Insurance Coverage (Table 9)

When stratified by dental insurance coverage (dental insurance vs. no dental insurance), significant differences in oral health status appeared. Compared to children with dental insurance, children without insurance were more likely to have untreated decay (51% vs. 35%) and less likely to have dental sealants (27% vs. 49%).

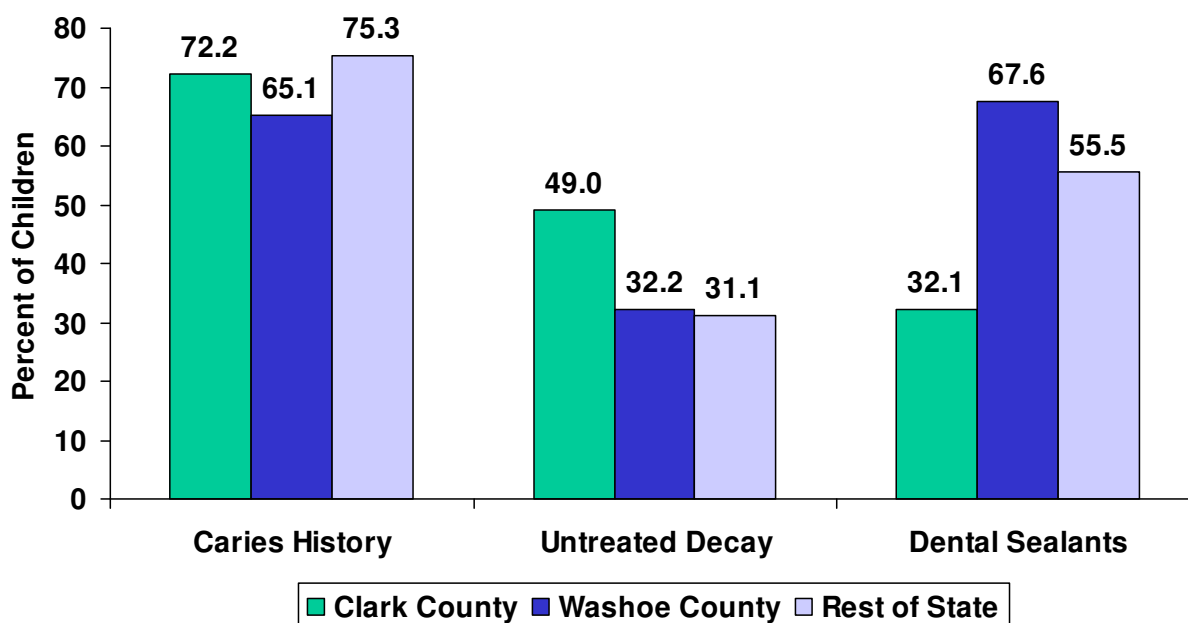
FIGURE 4 - 2006
ORAL HEALTH OF NEVADA'S THIRD GRADE STUDENTS
STRATIFIED BY DENTAL INSURANCE COVERAGE



Regional Differences (Tables 10)

The sampling scheme for the oral health survey allowed for stratification of the state into three different regions – Clark County, Washoe County, and Rest of State. The demographics of the children screened varied substantially by region. The children screened in Clark County were more likely to be minority, and less likely to have visited the dentist in the last year. These demographic differences may be partially responsible for some of the regional differences in oral health status. The prevalence of untreated decay was significantly higher in Clark County, than Washoe County (49% vs. 32%). Additionally a substantially lower percent of children in Clark County (32%) had dental sealants compared to Washoe County and Rest of State children (68% and 56% respectively).

**FIGURE 5 - 2006
ORAL HEALTH OF NEVADA'S THIRD GRADE STUDENTS
STRATIFIED BY REGION**



Other Measures of Oral Health (Table 11)

Screening the oral health of each third grader by tooth allowed the Oral Health Program to generate two other indicators of oral health; DMF/dmft (decayed, missing or filled primary and permanent teeth) and mean number of primary and permanent teeth with untreated decay. These measurements echo the findings discussed above.

White non-Hispanic children tend to have better DMF/dmft scores (2.3 vs. 3.6) and significantly fewer teeth with untreated decay than minority children (0.7 vs. 1.7). Third graders eligible for the free or reduced lunch program have significantly worse DMF/dmft scores (3.7 vs. 2.5) and significantly more teeth with untreated decay (1.6 vs. 0.7). The longer a child goes without visiting a dentist, the more teeth with untreated decay. Third graders that visited a dentist in past year had 0.7 teeth with untreated decay. Those that waited more than one year to see a dentist had 1.6 teeth with untreated decay, and those that had never been, had 2.5 teeth with untreated decay. Those third graders that have dental insurance had less than half the number of teeth with untreated decay than those without insurance (0.8 vs. 1.7). Those that have trouble accessing dental care have more than twice as many teeth with untreated decay (1.9 vs. 0.8) and their DMF/dmft scores are significantly worse (4.1 vs. 2.5). As one would expect, those children whose overall screening results led to treatment urgency indicator of “No Obvious Problem” had significantly fewer teeth with untreated decay than children whose treatment indicator was “Needs Restorative Care” (0.3 vs. 2.6). This pattern continued as those children whose treatment indicator was “Needs Restorative Care” had significantly fewer teeth with untreated decay than those whose treatment indicator was “Urgent Care” (2.6 vs. 4.1). Third graders without dental sealants had almost four times as many teeth with untreated decay (1.8 vs. 0.5) and their DMF/dmft scores were significantly worse than those with dental sealants (3.4 vs. 2.6). Finally, from a regional stand point, third graders from Clark County had nearly twice as many teeth with untreated decay as Washoe County and the remainder of Nevada (1.5 vs. 0.8 vs. 0.8).

Healthy People 2010 Objectives (Tables 12)

The National Oral Health Objectives for the Year 2010 (Healthy People 2010) outline several oral health status objectives for young children. For six to eight-year-old children there are three primary oral health status objectives:

- To decrease the proportion of children who have experienced dental caries in permanent or primary teeth to 42 percent.
- To decrease the proportion of children with untreated dental caries in permanent or primary teeth to 21 percent.
- To increase the proportion of eight-year-olds receiving protective sealing of the occlusal surfaces of permanent molar teeth to 50 percent.

The state of Nevada needs to make considerable progress if these objectives are to be met. More than 71 percent of the third grade children screened in Nevada had

experienced dental caries – substantially higher than the HP2010 objective of 42 percent. Forty-four percent (44%) of the Nevada children had untreated caries compared to the HP2010 objective of 21 percent. Forty-one percent (41%) of eight-year-old children surveyed had dental sealants compared to the HP2010 objective of 50 percent.

Comparison to Other States (Tables 13A, 13B and 13C)

The Center for Disease Control and Prevention (CDC), Division of Oral Health and the ASTDD maintain the National Oral Health Surveillance System (NOHSS) to monitor the burden of oral health disease at the state and national level. The most current oral health indicators for participating states are on their web site.³

Overall, children in Nevada tend to have poorer oral health when compared to children from other states. A higher proportion (44%) of Nevada's children have untreated decay; the median for the 23 reporting states is 23 percent. While the proportion of Nevada third graders that have dental sealants is above the median for the 23 reporting states (41% versus 35%) this value is significantly below the HP2010 objective of 50 percent.

³ Centers for Disease Control and Prevention, National Oral Health Surveillance System Web Site, <http://www.cdc.gov/nohss/>, for Dental Sealants, Caries Experience and Untreated Tooth Decay

Table 2. Demographic Characteristics of Children Participating in Nevada's Oral Health Survey
(Percent and Confidence Intervals are weighted)

Variable	2003 Results		2006 Results	
	Sample Size	Percent	Sample Size	Percent
Gender	2,425	47.6 52.4	790	49.0 51.0
Male				
Female				
Age	2,468	8.5(0.55) 7 – 11 years	789	8.7(0.54) 8 – 11 years
Mean (S.D.)				
Range				
Race and Ethnicity*	2,470	51.3 10.6 35.7 5.7 1.5 2.5 2.5	794	40.4 6.5 41.9 3.0 0.8 0.4 5.7 1.3
White				
African American				
Hispanic				
Asian				
Native Hawaiian/Pacific Islander				
American Indian/Alaska Native				
Multiple races selected				
Unknown/Missing				
Eligible for Free/Reduced Lunch	2,470	45.1 46.0 9.0	794	45.5 42.1 12.5
Yes				
No				
Unknown/Missing				

* In 2003, parents could select multiple categories; therefore, the sum is greater than 100%. Two hundred thirty (230) parents selected more than one race/ethnicity. For 2006, those who had multiple categories selected were placed in their own category and excluded from this analysis.

Table 3. Oral Health of Nevada's Third Grade Children
(Percent and Confidence Intervals are weighted)

Variable	2003 Results			2006 Results		
	Sample Size	Percent	95% CI	Sample Size	Percent	95% CI
Caries Free	2,470	32.9	29.9 – 35.8	794	28.6	22.0 – 35.2
Caries History	2,470	67.1	64.2 – 70.1	794	71.4	64.8 – 78.0
Untreated Decay	2,465	39.0	35.0 – 43.1	794	44.0	37.6 – 50.3
Dental Sealants	2,467	33.2	27.5 – 38.9	794	41.0	35.3 – 46.7
Treatment Urgency	2,441			793		
None		58.0	53.3 – 62.7		61.8	55.6 – 67.9
Early		35.0	31.6 – 38.5		32.7	27.5 – 37.9
Urgent		7.0	4.1 – 9.9		5.6	3.5 – 7.7

Table 4. Last Dental Visit, Insurance and Access to Care for Nevada's Third Grade Children
(Results are not weighted)

Variable	2003 Results			2006 Results		
	Sample Size	Percent	95% CI	Sample Size	Percent	95% CI
Last Dental Visit	2,705			794		
Within past 12 months		58.3	56.4 – 60.2		59.8	56.3 – 63.4
1-3 years ago		19.7	18.3 – 21.3		16.2	12.2 – 20.3
More than 3 years ago		5.2	4.4 – 6.1		4.6	1.8 – 7.3
Never been to dentist		11.2	10.1 – 12.5		8.8	5.1 – 12.4
Unknown/Missing		5.5	4.7 – 6.4		10.6	0.6 – 20.7
Reason For Last Visit	2,705			794		
Went in on own for check-up		56.7	54.8 – 58.5		56.6	53.1 – 60.1
Called in for check-up		4.0	3.3 – 4.8		3.3	2.1 – 4.6
Something was wrong		9.9	8.9 – 11.1		8.2	5.0 – 11.4
Went for treatment		8.2	7.2 – 9.4		9.1	6.7 – 11.5
Other		3.6	2.9 – 4.4		2.4	0.6 – 4.1
Never been to dentist		11.5	10.3 – 12.7		8.7	5.1 – 12.3
Unknown/Missing		6.1	5.3 – 7.1		11.7	1.9 – 21.5
Medical Insurance	2,705			794		
Yes		70.9	69.1 – 72.6		65.7	60.0 – 71.3
No		23.0	21.4 – 24.6		22.5	17.4 – 27.7
Unknown/Missing		6.1	5.3 – 7.1		11.8	2.1 – 21.5
Dental Insurance	2,705			794		
Yes		65.0	63.1 – 72.6		61.5	56.0 – 66.9
No		27.4	25.7 – 29.1		25.7	20.4 – 31.0
Unknown/Missing		7.7	6.7 – 8.7		12.8	3.9 – 21.7
Trouble Accessing Care	2,705			794		
Yes		19.5	18.0 – 21.0		18.3	13.2 – 23.5
No		67.3	65.5 – 69.1		66.7	60.6 – 72.8
Unknown/Missing		13.2	12.0 – 14.5		15.0	5.7 – 24.3

Table 5. Reasons Why Child Could Not Get Dental Care in Past 12 Months
(Frequencies and percents are not weighted)

Reason	2003 Responses		2006 Responses	
	Frequency	Percent	Frequency	Percent
Could not afford it	204	40.7	102	56.7
No insurance	140	27.9	34	18.9
Dentist did not accept Medicaid	32	6.4	10	5.6
Speak a different language	4	0.8	0	0.0
Wait is too long in clinic	13	2.6	2	1.1
Health of another family member	5	1.0	0	0.0
Difficulty in getting an appointment	37	7.4	7	3.9
No way to get there	8	1.6	4	2.2
Didn't know where to go	6	1.2	0	0.0
No dentist available	4	0.8	3	1.7
Not a serious enough problem	14	2.8	7	3.9
Dentist hours were not convenient	6	1.2	2	1.1
Didn't like/believe in the dentist	1	0.2	0	0.0
Other	27	5.4	9	5.0
Total	501	100.0	180	100.1 *
Responses				

* Greater than 100% due to rounding.

Note: One of the questions on the consent form was “During the past 12 months, was there a time when your child needed dental care but could not get it at that time?” If the guardian checked yes, they were then asked to select the reason they were not able to get dental care. Not everyone chose to identify the reason. The above table summarizes the results.

Table 6. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Eligibility for the Free and/or Reduced Price Meal Program
(Percent and Confidence Intervals are weighted)

	2003 Results			2006 Results		
	Percent of Children (95% Confidence Interval)			Percent of Children (95% Confidence Interval)		
Variable	Eligible (n=1,113)	Not Eligible (n=1,135)	No Response (n=222)	Eligible (n=361)	Not Eligible (n=334)	No Response (n=99)
Race/Ethnicity						
White non-Hispanic	26.3 (19.7-32.8)	64.7 (59.8-69.5)	36.3 (27.2-45.5)	18.4 (14.9-21.8)	68.1 (64.7-71.6)	21.9 (8.4-35.5)
Minority	72.9 (66.2-79.5)	32.7 (27.7-37.7)	58.7 (49.8-67.7)	81.0 (77.3-84.8)	30.3 (27.1-33.4)	76.3 (61.8-90.8)
Unknown/Missing	0.9 (0.3 – 1.5)	2.7 (1.4 – 3.9)	4.9 (1.6 – 8.3)	0.6 (0.0-1.7)	1.6 (0.0-3.6)	1.8 (0.0-5.3)
Last Dental Visit						
Within last year	43.2 (39.5-46.9)	74.8 (70.8-78.8)	49.3 (41.9-56.8)	52.3 (45.4-59.2)	80.3 (74.3-86.4)	23.2 (4.2-42.1)
More than one year ago	34.1 (31.2-37.0)	18.2 (15.2-21.3)	29.3 (22.7-35.8)	29.6 (27.4-31.8)	13.8 (10.8-16.9)	16.7 (3.0-30.4)
Never been	17.9 (14.9-20.8)	5.4 (3.9-7.0)	8.2 (4.0-12.5)	12.4 (8.1-16.6)	5.3 (1.6-9.0)	9.0 (0.0-18.6)
Unknown/Missing	4.8 (3.6-5.9)	1.5 (0.8-2.3)	13.2 (8.4-18.0)	5.7 (3.4-8.0)	0.5 (0.0-1.2)	51.1 (12.0-90.2)
Dental Insurance						
Yes	54.7 (51.0-58.5)	77.0 (74.0-80.0)	57.1 (50.3-64.0)	53.6 (49.0-58.2)	81.1 (74.1-88.1)	28.2 (7.3-49.0)
No	38.0 (34.4-41.6)	20.0 (17.3-22.7)	28.7 (21.8-35.6)	36.5 (33.0-40.0)	17.8 (10.8-24.9)	19.2 (3.3-35.2)
Unknown/Missing	7.3 (5.7-8.9)	3.0 (1.9-4.0)	14.2 (9.4-19.0)	9.9 (6.3-13.4)	1.1 (0.1-2.2)	52.6 (16.6-88.6)
Trouble Accessing Care						
Yes	30.7 (26.7-34.6)	11.6 (10.0-13.6)	20.1 (13.4-26.8)	31.5 (24.9-38.0)	9.2 (4.9-13.5)	9.0 (0.0-18.7)
No	51.2 (46.8-55.5)	85.0 (82.5-87.5)	57.7 (50.2-65.2)	54.9 (48.7-61.0)	89.9 (85.3-94.5)	33.6 (8.7-58.6)
Unknown/Missing	18.1 (14.3-21.9)	3.4 (2.3-4.5)	22.2 (16.4-27.9)	13.7 (11.5-15.9)	0.9 (0.0-1.8)	57.4 (24.3-90.5)
Caries History	73.5 (70.4-76.7)	61.3 (57.8-64.8)	64.6 (57.9-71.2)	80.2 (73.7-86.6)	62.3 (54.7-70.0)	73.4 (59.8-86.9)
Untreated Decay	49.3 (46.2-52.4)	29.2 (24.8-33.5)	37.9 (30.5-45.3)	52.4 (44.6-60.2)	29.2 (20.8-37.7)	62.4 (48.2-76.6)
Dental Sealants	23.5 (17.8-29.2)	43.0 (37.2-48.8)	31.4 (22.8-40.1)	36.2 (27.1-45.4)	51.9 (43.4-60.5)	23.5 (13.6-33.5)
Treatment Urgency						
None	46.5 (42.0-51.0)	68.9 (64.4-73.5)	59.6 (51.8-67.3)	51.8 (45.7-58.0)	74.0 (65.4-82.7)	53.9 (44.8-63.0)
Early	42.7 (38.7-46.7)	28.1 (24.1-32.1)	31.9 (24.8-39.0)	41.3 (36.5-46.1)	23.2 (14.9-31.5)	36.1 (27.5-44.7)
Urgent	10.8 (6.5-15.0)	3.0 (1.7-4.2)	8.6 (3.1-14.1)	6.9 (4.2-9.51)	2.8 (1.6-4.0)	10.0 (3.4-16.6)

Table 7. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Time Since Last Dental Visit
(Percent and Confidence Intervals are weighted)

Variable	2003 Results			2006 Results		
	Percent of Children (95% Confidence Interval)			Percent of Children (95% Confidence Interval)		
	Within Past Year (n=1,443)	More Than 1 Year (n=640)	Never Been to Dentist (n=286)	Within Past Year (n=485)	More Than 1 Year (n=181)	Never Been to Dentist (n=66)
Race/Ethnicity						
White non-Hispanic	53.2 (46.4-60.0)	37.2 (29.6-44.8)	25.4 (16.7-34.2)	53.0 (47.3-58.7)	29.4 (19.7-39.2)	15.1 (4.8-25.5)
Minority	45.1 (38.2-51.9)	61.0 (53.3-68.8)	72.4 (63.7-81.0)	45.4 (39.2-51.6)	70.3 (60.5-80.2)	84.9 (74.5-95.2)
Unknown/Missing	1.7 (0.9-2.6)	1.8 (0.6-2.9)	2.2 (0.4-3.9)	1.6 (0.0-3.2)	Insufficient data	Insufficient data
Eligible for F/R Lunch						
Yes	33.4 (26.3-40.5)	58.1 (50.9-65.4)	71.2 (64.0-78.5)	35.8 (28.4-43.3)	58.5 (49.7-67.3)	57.7 (40.5-75.0)
No	58.7 (51.5-65.9)	31.6 (24.9-38.3)	22.0 (15.6-28.3)	58.1 (50.6-65.5)	28.8 (21.7-35.9)	26.1 (9.6-42.6)
Unknown/Missing	7.9 (6.7-9.0)	10.3 (7.6-13.0)	6.8 (3.4-10.1)	6.1 (3.6-8.7)	12.7 (10.0-15.4)	16.2 (9.3-23.0)
Dental Insurance						
Yes	77.9 (75.3-80.6)	56.7 (51.5-61.8)	40.0 (34.7-45.4)	82.6 (79.2-86.1)	46.7 (38.8-54.6)	26.0 (11.8-40.1)
No	19.5 (17.1-21.8)	40.9 (35.7-46.1)	55.8 (49.9-61.8)	15.8 (12.5-19.2)	48.9 (43.2-54.6)	68.4 (53.3-83.5)
Unknown/Missing	2.6 (1.7-3.4)	2.4 (1.2-3.6)	4.1 (2.0-6.2)	1.5 (0.3-2.8)	4.3 (0.8-7.9)	Insufficient data
Trouble Accessing Care						
Yes	14.6 (12.0-17.2)	34.8 (30.7-38.9)	27.3 (21.6-33.0)	12.0 (9.2-14.9)	37.8 (28.6-47.0)	36.5 (27.3-45.7)
No	80.2 (76.6-83.9)	55.5 (50.7-60.2)	49.4 (42.2-56.6)	84.1 (80.2-88.1)	55.0 (45.1-64.8)	53.9 (36.5-71.4)
Unknown/Missing	5.1 (3.3-7.0)	9.7 (6.5-13.0)	23.3 (16.3-30.3)	3.8 (1.9-5.7)	7.2 (1.7-12.8)	Insufficient data
Caries History	70.0 (66.1-73.9)	68.0 (63.9-72.0)	51.2 (42.8-59.6)	67.2 (58.7-75.8)	75.3 (64.9-85.6)	71.1 (59.4-82.7)
Untreated Decay	31.8 (27.2-36.5)	48.7 (44.5-53.0)	49.0 (40.6-57.3)	32.2 (24.2-40.1)	50.7 (36.6-64.8)	71.1 (59.4-82.7)
Dental Sealants	45.6 (39.7-51.5)	18.8 (13.6-24.0)	5.1 (1.1-9.0)	52.8 (45.1-60.5)	26.7 (16.6-36.9)	12.4 (3.0-21.8)
Treatment Urgency						
None	66.7 (61.9-71.5)	48.2 (43.8-52.6)	41.2 (35.4-47.0)	71.9 (64.8-79.1)	52.8 (40.6-65.0)	34.5 (21.6-47.5)
Early	29.4 (25.6-33.1)	40.7 (36.2-45.3)	48.6 (41.8-55.3)	25.0 (18.4-31.6)	40.1 (29.1-51.1)	57.5 (43.5-71.5)
Urgent	3.9 (1.8-6.0)	11.1 (6.9-15.2)	10.2 (5.1-15.3)	3.1 (1.0-5.1)	7.1 (4.3-10.0)	8.0 (1.7-14.2)

Table 8 A. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Race and Ethnicity
(Results are not weighted)

Variable	2003 Results						2006 Results					
	Percent of Children						Percent of Children					
	White Non- Hispanic (n=1095)	African American (n=261)	Hispanic (n=883)	Asian (n=140)	Hawaiian or Pacific Islander (n=36)	American Indian or Alaskan Native (n=61)	White Non- Hispanic (n=331)	African American (n=38)	Hispanic (n=321)	Asian (n=24)	Hawaiian or Pacific Islander (n=11)	American Indian or Alaskan Native (n=9)
Eligible for F/R Lunch												
Yes	25.9	62.5	68.4	30.0	33.3	42.6	20.5	60.5	69.2	29.2	63.6	66.7
No	67.0	26.4	22.1	58.6	50.0	45.9	71.6	28.9	12.8	66.7	27.3	22.2
Unknown/Missing	7.0	11.1	9.5	11.4	16.7	11.5	7.9	10.5	18.1	4.2	9.1	11.1
Last Dental Visit												
Within last year	69.6	52.9	45.8	65.0	58.3	55.7	76.7	50.0	42.7	62.5	63.6	77.8
More than one year ago	21.4	32.6	29.6	25.0	38.9	26.2	16.9	34.2	28.0	20.8	36.4	22.2
Never been	6.6	9.2	18.8	9.3	2.8	18.0	3.3	10.5	14.3	12.5	0.0	0.0
Unknown/Missing	2.5	5.4	5.9	0.7	0.0	0.0	3.0	5.3	15.0	4.2	0.0	0.0
Dental Insurance												
Yes	73.7	72.4	50.2	75.7	86.1	77.0	76.7	76.3	38.0	83.3	63.6	77.8
No	22.6	22.2	40.1	20.7	11.1	21.3	19.3	18.4	43.0	12.5	36.4	11.1
Unknown/Missing	3.7	5.4	9.7	3.6	2.8	1.6	3.9	5.3	19.0	4.2	0.0	11.1
Trouble Accessing Care												
Yes	17.1	21.5	24.2	20.7	30.6	29.5	13.6	23.7	31.5	20.8	45.5	11.1
No	79.5	68.2	51.3	70.0	66.7	67.2	83.1	71.1	44.2	75.0	54.5	88.9
Unknown/Missing	3.4	10.3	24.5	9.3	2.8	3.3	3.3	5.3	24.3	4.2	0.0	0.0
Caries History	63.8	68.6	70.4	68.6	72.2	68.9	62.8	76.3	81.3	83.3	90.9	100.0
Untreated Decay	32.7	44.2	45.8	38.6	36.1	42.6	26.6	47.4	54.8	45.8	45.5	66.7
Dental Sealants	41.5	19.2	24.7	32.1	33.3	41.0	60.4	39.5	36.1	45.8	63.6	22.2
Treatment Urgency												
None	65.6	53.3	48.7	57.2	63.9	49.2	74.0	57.9	51.4	66.7	54.5	33.3
Early	29.1	39.7	40.5	39.1	33.3	42.6	22.1	36.8	37.4	29.2	36.4	66.7
Urgent	5.4	7.0	10.8	3.6	2.8	8.2	3.9	5.3	11.2	4.2	9.1	0.0

Table 8 B. Reasons for Trouble Accessing Care: Stratified by Race and Ethnicity
(Results are not weighted)

Race and Ethnicity	Primary Reasons (Percent of Respondents that Reported Reasons)	
	2003	2006
White Non-Hispanic	Could not afford it (43%), No insurance (26%), Dentist did not accept Medicaid (8%), Difficulty in getting appointment (8%)	Could not afford it (47%), No insurance (12%)
African American	No insurance (32%), Could not afford it (23%), Dentist did not accept Medicaid (18%), Difficulty in getting appointment (7%)	Could not afford it (45%) [1]
Hispanic	Could not afford it (46%), No insurance (30%), Not serious enough (6%), Difficulty in getting appointment (8%)	Could not afford it (32%), No insurance (12%), Dentist did not accept Medicaid (3%)
Asian	No insurance (33%), Could not afford it (19%), Difficulty in getting appointment (11%), Dentist hours are not convenient (7%), Dentist did not accept Medicaid (7%),	Not enough respondents to summarize.
Hawaiian or Pacific Islander	No insurance (36%), Could not afford it (21%), Difficulty in getting appointment (21%)	Not enough respondents to summarize.
American Indian or Alaska Native	Could not afford it (32%), No insurance (21%), Difficulty in getting appointment (16%)	Not enough respondents to summarize.

[1] 2006 Sample sizes in each category are small; results should be used with caution.

Table 8 C. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Race
(Percent and Confidence Intervals are weighted)

Variable	2006 Results	
	White Non-Hispanic (n=331)	Minority (n=456)
Caries History	60.6 (49.2-71.9)	78.3 (73.1-83.4)
Untreated Decay	27.8 (21.6-31.0)	54.6 (48.9-60.3)
Dental Sealants	51.0 (42.1-59.9)	33.1 (26.0-40.3)

Table 9. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Dental Insurance Status
(Percent and Confidence Intervals are weighted)

Variable	2003 Results			2006 Results		
	Percent of Children (95% Confidence Interval)			Percent of Children (95% Confidence Interval)		
	Dental Insurance (n=1,614)	No Dental Insurance (n=703)	Missing / Unknown (n=153)	Dental Insurance (n=481)	No Dental Insurance (n=232)	Missing / Unknown (n=81)
Race/Ethnicity						
White non-Hispanic	50.4 (43.6-57.3)	35.7 (27.8-43.7)	26.2 (17.0-35.5)	52.2 (46.4-58.0)	26.2 (18.9-33.5)	12.5 (0.8-24.2)
Minority	47.5 (40.5-54.5)	63.0 (55.0-71.0)	67.6 (56.9-78.4)	46.3 (39.6-53.0)	73.6 (66.2-81.1)	85.3 (71.7-98.9)
Unknown/Missing	2.0 (1.0-3.0)	1.3 (0.5-2.0)	6.1 (1.5-10.8)	1.5 (0.0-3.2)	0.2 (0.0-0.5)	2.2 (0.0-6.7)
Eligible for F/R Lunch						
Yes	37.8 (30.7-44.9)	59.2 (50.9-67.4)	55.0 (44.7-65.4)	35.8 (28.7-42.9)	58.2 (46.4-70.1)	31.6 (0.0-70.8)
No	54.0 (47.0-61.1)	31.6 (24.9-39.5)	22.9 (14.9-30.7)	57.0 (50.0-64.0)	30.0 (18.4-41.5)	3.8 (0.0-8.2)
Unknown/Missing	8.1 (6.7-9.6)	9.2 (6.9-11.5)	22.1 (14.4-29.8)	7.2 (5.9-8.6)	11.8 (7.7-15.9)	64.6 (22.8-100)
Last Dental Visit						
Within last year	69.7 (65.3-74.0)	39.2 (34.4-44.0)	25.2 (18.6-31.7)	80.4 (77.6-83.2)	36.9 (28.2-45.5)	7.2 (0.0-15.0)
More than one year ago	23.0 (19.8-26.2)	37.4 (33.0-41.7)	10.7 (5.9-15.6)	15.8 (13.7-17.9)	39.6 (32.7-46.4)	7.0 (0.0-18.4)
Never been	6.9 (5.0-8.9)	21.8 (17.6-26.0)	7.8 (4.0-11.7)	3.7 (1.5-6.0)	23.4 (16.6-30.1)	3.8 (0.0-10.7)
Unknown/Missing	0.4 (0.1-0.7)	1.6 (0.5-2.7)	56.2 (48.1-64.4)	0.1 (0.0-0.3)	0.2 (0.0-0.6)	82.0 (60.0-100)
Trouble Accessing Care						
Yes	16.0 (13.4-18.6)	35.6 (31.5-39.7)	4.5 (0.9-8.2)	11.8 (8.1-15.5)	41.3 (32.2-50.4)	3.5 (0.0-9.4)
No	78.6 (75.0-82.1)	51.4 (45.9-56.9)	20.2 (12.9-27.4)	86.0 (81.4-90.6)	51.5 (41.4-61.7)	4.3 (0.0-11.0)
Unknown/Missing	5.4 (3.4-7.4)	13.0 (8.8-17.1)	75.3 (68.3-82.3)	2.2 (1.0-3.4)	7.2 (1.6-12.7)	92.3 (79.8-100)
Caries History	67.7 (64.5-70.9)	66.3 (62.3-70.2)	64.9 (56.7-73.1)	68.0 (58.4-77.6)	71.9 (66.6-77.2)	86.5 (78.2-94.8)
Untreated Decay	34.5 (30.4-38.7)	47.2 (42.6-51.8)	48.6 (39.3-57.9)	34.7 (23.8-45.7)	50.7 (43.7-57.6)	74.7 (66.9-82.5)
Dental Sealants	39.2 (33.3-45.1)	20.7 (14.1-26.6)	28.0 (20.0-36.0)	49.3 (43.0-55.7)	27.4 (19.8-35.0)	28.2 (17.0-39.5)
Treatment Urgency						
None	64.0 (59.5-68.5)	46.6 (40.9-52.3)	47.3 (38.0-56.7)	70.3 (61.4-79.1)	49.4 (40.0-58.7)	45.7 (30.3-61.1)
Early	31.0 (27.7-34.3)	42.7 (37.6-47.8)	42.1 (32.8-51.4)	26.8 (18.4-35.1)	43.7 (35.8-51.6)	38.9 (25.3-52.5)
Urgent	5.0 (2.3-7.7)	10.7 (6.7-14.7)	10.5 (5.4-15.7)	3.0 (1.6-4.4)	7.0 (4.4-9.5)	15.4 (11.0-19.9)

Table 10. Demographics, Access to Care and Oral Health of Nevada's Third Grade Students Stratified by Region
(Percent and Confidence Intervals are weighted)

Variable	2003 Results			2006 Results		
	Percent of Children (95% Confidence Interval)			Percent of Children (95% Confidence Interval)		
	Clark County (n=1,658)	Washoe County (n=413)	Rest of State (n=399)	Clark County (n=294)	Washoe County (n=270)	Rest of State (n=230)
Race/Ethnicity						
White non-Hispanic	38.7 (31.0-46.3)	48.2 (31.2-65.2)	71.4 (60.2-82.7)	35.5 (30.3-40.7)	44.5 (37.4-51.6)	62.8 (50.9-74.7)
Minority	59.4 (51.7-67.2)	50.4 (33.0-67.8)	24.7 (13.2-36.2)	62.9 (57.3-68.5)	55.5 (48.4-62.6)	36.4 (24.1-48.6)
Unknown/Missing	1.9 (0.9-2.9)	1.4 (0.1-2.6)	3.9 (0.7-7.0)	1.6 (0.4-2.9)	0.0	0.8 (0.0-2.0)
Eligible for F/R Lunch						
Yes	47.9 (38.7-57.1)	38.5 (19.4-57.6)	38.6 (24.7-52.6)	39.9 (24.5-55.3)	46.5 (39.5-53.6)	39.7 (30.1-49.3)
No	42.4 (33.4-51.4)	51.8 (33.5-70.1)	55.1 (41.4-68.7)	40.6 (33.2-48.0)	45.7 (39.0-52.5)	54.8 (43.8-65.8)
Unknown/Missing	9.7 (8.4-11.1)	9.7 (7.0-12.5)	6.3 (3.8-8.8)	19.5 (4.6-34.4)	7.7 (3.9-11.6)	5.5 (3.3-7.7)
Last Dental Visit						
Within last year	54.7 (49.2-60.1)	66.5 (55.3-77.6)	65.8 (57.6-74.0)	56.2 (51.5-61.0)	64.5 (57.7-71.4)	74.0 (70.5-77.4)
More than one year ago	28.3 (25.1-31.5)	20.9 (15.1-26.7)	23.9 (19.5-28.3)	20.4 (14.1-26.8)	22.1 (18.0-26.2)	20.9 (18.4-23.5)
Never been	13.0 (9.9-16.0)	7.6 (2.6-12.6)	7.5 (3.1-11.8)	9.8 (4.8-14.9)	8.5 (5.3-11.7)	3.1 (1.1-5.2)
Unknown/Missing	4.0 (3.1-5.0)	5.0 (2.5-7.6)	2.9 (1.1-4.7)	13.5 (0.0-27.7)	4.9 (3.3-6.5)	2.0 (0.0-4.0)
Dental Insurance						
Yes	63.9 (60.2-67.5)	65.5 (54.0-77.0)	71.3 (64.4-78.1)	60.8 (53.1-68.4)	58.4 (55.1-61.6)	69.7 (63.9-75.5)
No	30.2 (26.9-33.6)	28.2 (19.0-37.4)	23.1 (17.8-28.4)	23.5 (16.2-30.8)	35.7 (31.1-40.4)	24.8 (17.0-32.7)
Unknown/Missing	5.9 (4.7-7.2)	6.3 (3.4-9.2)	5.6 (2.3-8.9)	15.8 (3.2-28.3)	5.9 (3.7-8.2)	5.5 (2.1-8.9)
Trouble Accessing Care						
Yes	21.3 (18.2-24.4)	19.3 (11.2-27.3)	21.4 (14.9-27.9)	15.2 (8.1-22.4)	29.4 (24.8-34.0)	20.7 (15.6-25.9)
No	66.8 (61.8-71.7)	66.5 (51.8-81.6)	70.6 (62.7-78.5)	66.1 (57.6-74.6)	63.3 (59.5-67.1)	74.3 (68.4-80.1)
Unknown/Missing	11.9 (8.3-15.4)	14.2 (5.8-22.6)	8.0 (3.8-12.1)	18.6 (5.5-31.8)	7.3 (4.5-10.1)	5.0 (2.2-7.9)
Caries History	68.2 (64.9-71.6)	62.9 (55.5-70.2)	67.0 (58.3-75.5)	72.2 (63.0-81.3)	65.1 (59.7-70.6)	75.3 (67.0-83.5)
Untreated Decay	41.1 (36.1-46.1)	34.4 (26.6-42.2)	34.4 (26.1-42.8)	49.0 (40.5-57.6)	32.2 (24.7-39.8)	31.1 (19.2-43.0)
Dental Sealants	24.2 (19.8-28.7)	58.0 (47.5-68.5)	46.9 (32.0-61.9)	32.1 (24.5-39.8)	67.6 (59.5-75.6)	55.5 (46.7-64.4)
Treatment Urgency						
None	57.2 (51.2-63.1)	60.3 (49.8-70.9)	59.1 (51.1-67.1)	59.1 (50.8-67.3)	67.6 (61.0-74.3)	68.9 (57.0-80.8)
Early	35.1 (31.0-39.2)	35.5 (25.7-45.3)	34.1 (27.7-40.5)	35.9 (28.9-42.8)	24.5 (17.5-31.5)	25.5 (16.6-34.3)
Urgent	7.7 (3.8-11.7)	4.2 (1.5-6.8)	6.8 (2.1-11.5)	5.1 (2.3-7.9)	7.8 (5.4-10.3)	5.6 (1.8-9.5)

Table 11. Mean DMF/dmft* and Number of Teeth with Decay by Socio-Economic Categories
(Means and Confidence Intervals are weighted)

	Mean DMF/dmft * (95% CI)	Mean Number Teeth With Untreated Decay (95% CI)
Race/Ethnicity		
White non-Hispanic (331)	2.3 (1.7-2.9)	0.7 (0.4-0.9)
Minority (456)	3.6 (3.4-3.8)	1.7 (1.4-1.9)
Unknown/Missing (7)	6.5 (3.5-9.4)	1.5 (0.5-2.4)
Eligible for F/R Lunch		
Yes (361)	3.7 (3.3-4.1)	1.6 (1.1-2.0)
No (334)	2.5 (2.2-2.7)	0.7 (0.4-1.1)
Unknown/Missing (99)	3.3 (2.1-4.4)	1.9 (1.2-2.5)
Last Dental Visit		
Within last year (485)	2.8 (2.5-3.2)	0.7 (0.5-1.0)
More than one year ago (181)	3.4 (2.5-4.3)	1.6 (1.0-2.2)
Never been (66)	2.5 (1.5-3.5)	2.5 (1.4-3.5)
Unknown/Missing (62)	4.6 (3.8-5.4)	2.6 (1.9-3.3)
Dental Insurance		
Yes (481)	2.7 (2.2-3.1)	0.8 (0.5-1.1)
No (232)	3.4 (2.9-4.0)	1.7 (1.3-2.2)
Unknown/Missing (81)	4.5 (3.8-5.1)	2.6 (1.8-3.5)
Trouble Accessing Care		
Yes (182)	4.1 (3.5-4.6)	1.9 (1.5-2.3)
No (516)	2.5 (2.5-2.8)	0.8 (0.5-1.0)
Unknown/Missing (96)	4.5 (4.2-4.8)	2.6 (2.0-3.2)
Treatment Urgency		
None (494)	2.3 (1.8-2.8)	0.3 (0.1-0.5)
Early (243)	4.2 (3.9-4.5)	2.6 (2.1-3.1)
Urgent (56)	5.7 (4.5-6.8)	4.1 (3.1-5.1)
Sealants Present		
Yes (391)	2.6 (2.4-2.9)	0.5 (0.4-0.7)
No (403)	3.4 (3.0-3.9)	1.8 (1.5-2.1)
Region		
Clark (294)	3.2 (2.8-3.6)	1.5 (1.2-1.7)
Washoe (270)	2.7 (2.3-3.0)	0.8 (0.7-1.0)
Rest of Nevada (230)	3.1 (2.5-3.7)	0.8 (0.4-1.1)

* DMF/dmft includes both permanent and primary teeth

Table 12 2003 and 2006 Nevada Oral Health Results Compared with Healthy People 2010 Objectives

	<u>SEALANTS</u>		
	2003	2006	2010
Nevada	33.2%	41.0%	50.0%
Clark Region	24.2%	32.1%	50.0%
Washoe Region	58.0%	67.6%	50.0%
Rural Region	46.9%	55.6%	50.0%

	<u>CARIES HISTORY</u>		
	2003	2006	2010
Nevada	67.1%	71.6%	42.0%
Clark Region	68.2%	72.2%	42.0%
Washoe Region	62.9%	66.3%	42.0%
Rural Region	67.0%	75.3%	42.0%

	<u>UNTREATED DECAY</u>		
	2003	2006	2010
Nevada	39.0%	44.0%	21.0%
Clark Region	41.1%	49.0%	21.0%
Washoe Region	34.4%	32.2%	21.0%
Rural Region	34.4%	31.1%	21.0%

NOTE: 2003 and 2006 Prevalence Rates are weighted
None of the year to year comparisons are significantly different
2003 & 2006, Clark region has significantly lower prevalence of sealants than the rest of Nevada
2006 Clark region untreated decay is probably significantly higher than the Washoe region

Table 13A. Prevalence of Dental Sealants in Nevada's Children Compared to Children from Other States*

State	Percent
Vermont	66.1%
Massachusetts	53.8%
Idaho	53.6%
Oregon	50.8%
Washington	50.4%
South Dakota	49.6%
Nebraska	45.3%
New Mexico	43.2%
Nevada	41.0%
Georgia	40.3%
Arizona	36.2%
Colorado	35.2%
Delaware	34.3%
Kentucky	28.8%
Missouri	28.6%
California	27.6%
New York	27.0%
Illinois	26.9%
Pennsylvania	26.1%
Mississippi	25.6%
Maryland	23.7%
Michigan	23.3%
South Carolina	20.3%

* CDC Web Site <http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=1>

Table 13B Prevalence of Decay Experience in Nevada's Children Compared to Children from Other States *

State	Percent
Nevada	71.4%
California	70.9%
Mississippi	68.9%
South Dakota	66.9%
Arizona	66.7%
Idaho	65.4%
New Mexico	64.6%
Oregon	60.7%
Kentucky	59.8%
Washington	59.7%
Nebraska	59.3%
Michigan	58.0%
South Carolina	57.9%
Colorado	57.2%
Georgia	56.3%
Illinois	55.4%
Missouri	54.7%
Delaware	54.5%
New York	54.1%
Pennsylvania	52.6%
Massachusetts	48.2%
Vermont	45.1%
Maryland	42.4%

* CDC Web Site <http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=2>

Table 13C. Prevalence of Untreated Tooth Decay in Nevada's Children Compared to Children from Other States *

State	Percent
Nevada	44.0%
Arizona	39.4%
Mississippi	39.1%
New Mexico	37.0%
Kentucky	34.6%
New York	33.1%
South Carolina	32.5%
South Dakota	30.2%
Illinois	30.2%
Delaware	29.9%
California	28.7%
Idaho	27.3%
Pennsylvania	27.3%
Georgia	27.1%
Missouri	27.0%
Colorado	26.1%
Maryland	25.9%
Massachusetts	25.8%
Michigan	25.0%
Oregon	22.1%
Washington	19.1%
Nebraska	17.0%
Vermont	16.2%

* CDC Web Site <http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=3>